

LISTING OF CLAIMS:

1. (Original) A MEMS device having flexure elements with non-linear restoring force, comprising:
 - a substrate;
 - support elements formed on the substrate;
 - a moveable element floated over the substrate by the support elements so as to move;
 - flexure elements for elastically suspending the moveable element on the support elements;
 - a driving element for moving the moveable element;
 - repulsive elements for increasing the repulsive force of the flexure elements when the flexure elements supporting the moveable element are resiliently deformed by a predetermined amount during movement of the moveable element.
2. (Previously Presented) The MEMS device of claim 1, wherein the repulsive elements include stoppers having a predetermined size and positioned between the flexure elements and static elements, the static elements being fixed on the substrate opposite to the flexure elements.
3. (Original) The MEMS device of claim 2, wherein the stoppers are positioned at portions of the static elements opposite to the flexure elements so that middle

portions of the flexure elements contact the stoppers when the flexure elements are resiliently deformed by a predetermined amount.

4. (Original) The MEMS device of claim 2, wherein the stoppers are formed on middle portions of the flexure elements opposite to the static elements so that the stoppers contact the static elements when the flexure elements are resiliently deformed by a predetermined amount.

5. (Previously Presented) The MEMS device of claim 1, wherein the moveable element moves in a direction perpendicular to the plane of the substrate.

6. (Previously Presented) The MEMS device of claim 2, wherein the moveable element moves in a direction perpendicular to the plane of the substrate.

7. (Previously Presented) The MEMS device of claim 3, wherein the moveable element moves in a direction perpendicular to the plane of the substrate.

8. (Previously Presented) The MEMS device of claim 4, wherein the moveable element moves in a direction perpendicular to the plane of the substrate.

9. (Previously Presented) The MEMS device of claim 1, wherein the movable element moves in a direction parallel to the plane of the substrate.

10. (Previously Presented) The MEMS device of claim 2, wherein the movable element moves in a direction parallel to the plane of the substrate.

11. (Previously Presented) The MEMS device of claim 3, wherein the movable element moves in a direction parallel to the plane of the substrate.

12. (Previously Presented) The MEMS device of claim 4, wherein the movable element moves in a direction parallel to the plane of the substrate.

13. (Previously Presented) A MEMS device having flexure elements with non-linear restoring force, comprising:

a substrate;

support elements located on the substrate;

a moveable element suspended over the substrate by the support elements so as to be moveable;

flexure elements for elastically suspending the moveable element on the support elements;

repulsive elements for increasing the repulsive force of the flexure elements when the flexure elements supporting the moveable element are resiliently deformed by a predetermined amount in a direction, while permitting the moveable element to further move in said direction subject to said increased repulsive force.

14. (Previously Presented) The MEMS device of claim 13, wherein the repulsive elements include stoppers having a predetermined size and are positioned between the flexure elements and static elements, the static elements being fixed on the substrate opposite to the flexure elements.

15. (Previously Presented) The MEMS device of claim 14, wherein the stoppers are positioned at portions of the static elements opposite to the flexure elements so that the middle portions of the flexure elements contact the stoppers when the flexure elements are resiliently deformed by a predetermined amount.

16. (Previously Presented) The MEMS device of claim 14, wherein the stoppers are formed on middle portions of the flexure elements opposite to the static elements so that the stoppers contact the static elements when the flexure elements are resiliently deformed by a predetermined amount.

17. (Previously Presented) The MEMS device of claim 13, wherein the moveable element moves in a direction perpendicular to the plane of the substrate.

18. (Previously Presented) The MEMS device of claim 13, wherein the movable element moves in a direction parallel to the plane of the substrate.